



RECEIVED

OCT 03 2003

TC 1700

Dkt. 62620/PJP

1743

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Tania C. Sorrell et al.  
Serial No. : 10/081,838  
Filed : February 21, 2002  
For : **MAGNETIC RESONANCE SPECTROSCOPY TO IDENTIFY  
AND CLASSIFY MICROORGANISM**

1185 Avenue of the Americas  
New York, New York 10036  
September 29, 2003

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

SIR:

INFORMATION DISCLOSURE STATEMENT

In compliance with his duty of disclosure under 37 C.F.R. §1.56, applicant directs the Examiner's attention to the following references, which are listed on the accompanying form PTO-1449 (Exhibit 1). Copies of references are attached hereto as Exhibits 2-50 respectively, except for reference numbers 2, 12, 15, 16, 24, 30, 45, 46, 47, 48, 55, 56, 62 and 63.

1. Bax, A., and D. Davis. (1986). MLEV-17-based two dimensional homonuclear magnetization transfer spectroscopy. J. Magn. Reson. 65:355-360; (Exhibit 2)
2. Bradley, E., and R. Tibshirani. (1993). An introduction to the bootstrap. Chapman & Hall, London.
3. Braun, S., H.-O. Kalinowski, and S. Berger, (1998). 150 and More Basic NMR Experiments. Wiley-VCH, New York; (Exhibit 3)

Applicants : Tania C. Sorrell et al.  
Serial No. : 10/081,838  
Filed : February 21, 2002

4. Cohen, J. (Oct. 1968). Weighted Kappa: Nominal scale agreement with provision for scaled disagreement or partial credit. Psychol Bull. Vol. 70, No. 4 pp 213-218; (Exhibit 4);
5. Delpassand, E.S., M. V. Chari, C. E. Stager, J.D. Morrisett, J.J. Ford, and M. Romazi. Rapid identification of common human pathogens by high-resolution proton magnetic resonance spectroscopy. J. Clin. Microbiol. 33(5):1258-62 (May, 1995); (Exhibit 5)
6. Gadian, D. G. (1995). NMR and its Applications to Living Systems. Oxford University Press, Oxford; (Exhibit 6)
7. Goodacre, R., J. K. Heald, and D. B. Kell. (1999). Characterisation of intact microorganisms using electrospray ionisation mass spectrometry. FEMS Microbiol. Lett. 176(1):17-24; (Exhibit 7)
8. Goodacre, R., E. M. Timmins, P.J. Rooney, J.J. Rowland, and D.B. Kell. (1996). Rapid Identification of Streptococcus and Enterococcus Species Using Diffuse Reflectance-Absorbance Fourier Transform Infrared Spectroscopy and Artificial Neural Networks. FEMS Microbiol. Lett. 140(2-3):233-239; (Exhibit 8)
9. Hahn, P., I. C. Smith, L. Leboldus, C. Littman, R.L. Somorjai, and T. Bezabeth. (1997). The classification of benign and malignant human prostate tissue by multivariate analysis of <sup>1</sup>H magnetic resonance spectra. Cancer Res. 57(16):3398-401; (Exhibit 9)
10. Hardie, J. M., and R. A. Whiley. (1997). Classification and Overview of the Genera Streptococcus and Enterococcus. J. Appl. Microbiol. 83(Suppl S):S 1-S 11; (Exhibit 10)
11. Kummerle, M., S. Scherer, and H. Seiler. (1998). Rapid and Reliable Identification of Food Borne Yeasts By Fourier-Transform Infrared Spectroscopy. Appl. Environ. Microbiol. 64(6):2207-2214; (Exhibit 11)
12. Magee, J. (1993). Whole-organism Fingerprinting, p. 383-427. In M. Goodfellow and A.G. O'Donnell (ed.), Handbook of New Bacterial Systematics. Harcourt Brace, New York.
13. Mounford, C., R. Somorjai, L. Gluch, P. Malycha, C. Lean, P. Russell, M. Bilous, B. Barraclough, David Gillett, U. Himmelreich, B. Dolenko, A. Nikulin, and I. Smith. (2001). MRS on breast fine needle aspirate

Applicants : Tania C. Sorrell et al.  
Serial No. : 10/081,838  
Filed : February 21, 2002

biopsy determines pathology, vascularization and nodal involvement. Br. J. Surg. (88, 1234-1240); (Exhibit 12)

14. Naumann, D., V. Fijala, H. Labischinski, and G. Giebrecht. (1998). The rapid differentiation and identification of pathogenic bacteria using Fourier transform infrared spectroscopy. Journal of Molecular Structure. 174:165-170; (Exhibit 13);
15. Nelson, W., R. Manoharan, and J. Sperry. (1992). UV Resonance Raman Studies of Bacteria. Applied Spectroscopy Review. 27:67-124.
16. Pot, B., P. Vandamme, and K. Kersters. (1994). Analysis of electrophoretic whole-organism protein fingerprints., p. 493-521. In M. Goodfellow and A. O'Donnell (ed.), Chemical methods in prokaryotic systematics. John Wiley & Sons, Chichester.
17. Russell, P., C. Lean, L. Delbridge, G. May, S. Dowd, and C. Mountford, (1994). Proton magnetic resonance and human thyroid neoplasia. I: Discrimination between benign and malignant neoplasms. Am. J. Med. 96:383-388; (Exhibit 14)
18. Shaka, A., P. Barker, and R. Freeman. (1985). Computer-optimized decoupling scheme for wideband applications and low level operation. J. Magn. Reson. 64:547-552; (Exhibit 15)
19. Somorjai, R., B. Dolenko, A. Nikulin, P. Nickerson, D. Rush, A. Shaw, M. Glogowski, J. Rendell, and R. Deslauriers. (2000). Distinguishing Normal from Rejecting Renal Allografts: Application of a Three-Stage Classification Strategy to MR and IR of Urine. Vibrational Spectroscopy 28(1), 97-102 (2002). (Exhibit 16)
20. Somorjai, R. L., B. Dolenko, A. K. Nikulin, N. Pizzi, G. Scarth, P. Zhilkin, W. Halliday, D. Fewer, N. Hill, I. Ross, M. West, I. C. P. Smith, S. M. Donnelly, A.C. Kuesel, and K.M. Briere. (1996). Classification of <sup>1</sup>H MR spectra of human brain neoplasms: the influence of preprocessing and computerized consensus diagnosis on classification accuracy. J. Magn. Reson. Imaging. 6(3):437-44; (Exhibit 17)
21. Somorjai, R. L., A. E. Nikulin, N. Pizzi, D. Jackson, G. Scarth, B. Dolenko, H. Gordon, P. Russell, C.L. Lean, L. Delbridge, (1995). Computerized consensus diagnosis: a classification strategy for the robust analysis of MR spectra. I. Application to <sup>1</sup>H spectra of

Applicants : Tania C. Sorrell et al.  
Serial No. : 10/081,838  
Filed : February 21, 2002

thyroid neoplasms. Magn. Reson. Med. 33(2):257-63;  
(Exhibit 18)

22. Stager, C. E., and J. R. Davis. (1992). Automated systems for identification of microorganisms. Clin. Microbiol. Rev. 5(3):302-27; (Exhibit 19)
23. Wallace, J. C., G. P. Raaphorst, R. L. Somorjai, C. E. Ng, M. Fung Kee Fung, M. Senterman, and I. C. P. Smith. (1997). Classification of <sup>1</sup>H MR spectra of biopsies from untreated and recurrent ovarian cancer using linear discriminant analysis. Magn Reson. Med. 38(4):569-76; (Exhibit 20)
24. Willker, W., D. Leibfritz, R. Kerssebaum, and W. Bermel. (1993). Gradient selection in inverse heteronuclear correlation spectroscopy. Magn. Reson. Chem. 31:287-292; (Exhibit 21)
25. Mitchell TG, Perfect JR. Cryptococcosis in the era of AIDS-100 years after the discovery of Cryptococcus neoformans. Clin Micro Rev (1995); 8:515-548; (Exhibit 22)
26. Speed B, Dunt D. Clinical and host differences between infections with the two varieties of Cryptococcus neoformans. Clin Infect Dis (1995); 21:28-34; (Exhibit 23)
27. Mitchell DH, Sorrell TC, Allworth AM, Heath CH, McGregor AR, Papanou K, Richards MJ, Gottlieb T. Cryptococcal disease of the CNS in immunocompetent hosts: influence of cryptococcal variety on clinical manifestations and outcome. Clin. Infect. Dis (1995); 20:611-616; (Exhibit 24)
28. Chen SCA., Sorrell TC, Nimmo G, Speed B, Currie B, Ellis D, Marriott D, Pfeiffer T, Parr D, Byth K. Epidemiology, and host and variety-dependent characteristics of infection due to Cryptococcus neoformans, in Australia and New Zealand. Clin. Infect. Dis. (2000); 31:499-508; (Exhibit 25)
29. Fujita NK, Reynard M, Sapico FL, Guze LB, Edwards JE Jr. Cryptococcal intracerebral mass lesions: the role of computed tomography and nonsurgical management. Ann Intern Med (1981); 94:382-388; (Exhibit 26)
30. Andreula CF, Burdi N, Carella A. CNS cryptococcosis in AIDS:spectrum of MR findings J. Comp Assisted Tomog (1993); 17, 438-441.
31. Negendank W. Studies of human tumors by MRS: a review.

Applicants : Tania C. Sorrell et al.  
Serial No. : 10/081,838  
Filed : February 21, 2002

NMR Biomed (1992); 5:303-324; (Exhibit 27)

32. Remy C, Grand S, Lai ES, Belle V, Hoffmann D, Berger F, Ziegler A, Le Bas JF, Benabid AL, et al. 1H MRS of human brain abscesses in vivo and in vitro. Magn Reson Med (1995); 34:508-514; (Exhibit 28)
33. Hagberg G. From magnetic resonance spectroscopy to classification of tumor-a review of pattern recognition methods. NMR Biomed (1998); 11:148-156; (Exhibit 29)
34. Dev R, Gupta RK, Poptani H, Roy R, Sharma S, Hasain M. Role of in vivo proton magnetic resonance spectroscopy in the diagnosis and management of brain abscesses. Neurosurgery (1998); 2:37-42; (Exhibit 30)
35. Kim SH, Chang KH, Song IC, Han MH, Kim, HC, Kang, HS, Han MC. Brain abscess and brain tumor-discrimination with in vivo H-1 MR spectroscopy. Radiology (1997); 204:239-245; (Exhibit 31)
36. Grand Spassaro G, Ziegler A, Esteve F, Boujet C, Hoffman D, Rubin C, Segebarty C, Decorps M, LeBas J-F, Remy C. Necrotic tumor versus brain abscess: importance to amino acids detected at 1H MR spectroscopy-initial results. Radiology (1999); 213:785-793; (Exhibit 32)
37. Danielsen ER, Ross BD. Magnetic Resonance Spectroscopy Diagnosis of Neurological Diseases. New York: Marcel Dekker Inc., pp 27-43, (1998); (Exhibit 33)
38. Saunders DE, Howe FA, van der Boogaart A, McLean MA, Griffiths JR, Brown MM. Continuing ischemic damage after acute middle cerebral artery infarction in humans demonstrated by short-echo proton spectroscopy. Stroke (1995); 26, 1007-1013; (Exhibit 34)
39. Remy C, Arus C, Ziegler A, Lai ES, Moreno A, Le Fur Y, Decorps M. In vivo, ex vivo, and in vitro one-and two dimensional nuclear magnetic resonance spectroscopy of an intracerebral glioma in rat brain: assignment of resonances. J. Neurochem. (1994); 62:166-179; (Exhibit 35)
40. Delikatny EJ, Russell P, Hunter JC, Hancock R, Atkinson KH, Van Haaften-Day C, Mountford CE. Proton MR and human cervical neoplasia: ex vivo spectroscopy allows distinction of invasive carcinoma of the cervix from carcinoma in situ and other preinvasive lesions. Radiology (1993); 188:791-796; (Exhibit 36)

Applicants : Tania C. Sorrell et al.  
Serial No. : 10/081,838  
Filed : February 21, 2002

41. Makinnon WB, Barry PA, Malycha PL, Gillett DJ, Russell P, Lean CL, Doran ST, Barraclough BH, Bilous M, Mountford CE. Fine-needle biopsy specimens of benign breast lesions distinguished from invasive cancer ex vivo with proton MR spectroscopy. *Radiology* (1997); 204:661-666; (Exhibit 37)
42. Casadevall A, Perfect JE. In *Cryptococcus neoformans*. Washington DC, American Society for Microbiology Press, Chapter 4, pp. 71-81, (1998); (Exhibit 38)
43. Cherniak R, Sundstrom JB. Polysaccharide antigens of the capsule of *Cryptococcus neoformans*. *Infect. Immun* (1994); 62:1507-1512; (Exhibit 39)
44. Bubb WA, Wright LC, Cagney M, Santangelo RT, Sorrell TC, Kuchel PW. Heteronuclear NMR studies of metabolites produced by *Cryptococcus neoformans* in culture media: Identification of possible virulence factors. *Magn Reson Med* (1999); 42:442-453; (Exhibit 40)
45. Kwon-Chung KJ, Polacheck I, Bennett JE. Improved diagnostic medium for separation of *Cryptococcus neoformans* var. *neoformans* (serotypes A and D) and *Cryptococcus neoformans* var. *gatti* (serotypes B and C). *J Clin Microbiol* (1982); 15:535-537.
46. Jesson JP, Meakin P, Kneissel G, Homonuclear decoupling and peak elimination in Fourier transform nuclear magnetic resonance. *J Am Chem Soc* (1973); 95:618-620.
47. Tsang-Lin Hwang, Shaka AJ. Water suppression that works. Excitation sculpting using arbitrary waveforms and pulse field gradients. *J Magn Reson* (1995); 112:275-279.
48. Aue WP, Bartholdi E, Ernst RR. Two-dimensional spectroscopy. Application to nuclear magnetic resonance. *J Chem Phys* (1976); 64:2229-2246.
49. Lean CL, Mackinnon WB, Mountford CE. Fucose in <sup>1</sup>H COSY spectra of plasma membrane fragments shed from human malignant colorectal cells. *Magn Reson Med* (1991); 20:306-311; (Exhibit 41)
50. Palmer III AG, Cavanagh J, Wright PE, Rance M. Sensitivity improvement in proton-detected two-dimensional heteronuclear correlation NMR spectroscopy. *J Magn Reson* (1991); 93:151-170; (Exhibit 42)



Applicants : Tania C. Sorrell et al.  
Serial No. : 10/081,838  
Filed : February 21, 2002

51. Lean CL, Mackinnon WB, Delikatny EJ, Whitehead RH, Mountford CE. Cell-surface fucosylation and magnetic resonance spectroscopy characterization of human malignant colorectal cells. *Biochemistry* (1992); 31:11095-11105; (Exhibit 43)
52. Kalinowski HO, Berger S, Braun S. <sup>13</sup>C-NMR-Spektroskopie. Stuttgart: Georg Thieme Verlag pp 206-402 (1984); (Exhibit 44);
53. Barton JK, Den Hollander JA, Hopfield JJ, Shulman RG. <sup>13</sup>C nuclear magnetic resonance study of trehalose mobilization in yeast spores. *J. Bacteriol* (1982); 151:177-185; (Exhibit 45);
54. Wiemken A. Trehalose in yeast, stress protectant rather than reserve carbohydrate. *Antonie Leeuwenhoek* (1990); 58:209-217; (Exhibit 46);
55. Van Laere AJ. Trehalose, reserve and/or stress metabolite. *FEMS Microbiol Rev* (1989); 63:201-210.
56. Crowe JH, Hoekstra FA, Crowe L.M. Anhydrobiosis. *Annu Rev Physiol* (1992); 54:579-599.
57. De Virgilio C, Hottiger T, Dominguez J, Boller T, Wiemken A. The role of trehalose synthesis for the acquisition of thermotolerance in yeast. I. Genetic evidence that trehalose is a thermoprotectant. *Eur J Biochem* (1994); 219:179-186; (Exhibit 47)
58. Descord M, Remy C, Bourgeois D, Jacrot M, van Kienlin M, Benabid AL. Localised spectroscopy of rat brain tumors. *Magn Reson Med* (1989); 2:129-151.
59. Ross BD, Merkle H, Hendrich K, Staewen R S, Garwood M. Spatially localized in vivo <sup>1</sup>H magnetic resonance spectroscopy of an intracerebral rat glioma. *Magn Reson Med* (1992); 23:96-108; (Exhibit 48);
60. Thevelein JM. Regulation of trehalose metabolism and its relevance to cell growth and function. 395-420. In Brambl R, Marzluf, GA, eds. *The Mycota*. Vol 3. Berlin: Springer Verlag Chapter 19, pp 395-420 (1996); (Exhibit 49); and
61. Hengge-Aronis R, Klein W, Lange R, Rimmele M, Boos W. Trehalose synthesis genes are controlled by the putative sigma factor encoded by rpoS and are involved in stationary-phase thermotolerance in *Escherichia coli*. *J. Bacteriol* (1991); 173:7918-7924; (Exhibit 50)

Applicants : Tania C. Sorrell et al.  
Serial No. : 10/081,838  
Filed : February 21, 2002

62. Kwon-Chung KJ, Rhodes JC. Encapsulation and melanin formation as indicators of virulence in *Cryptococcus neoformans*. *Infect Immun* (1986); 51:218-223.
63. Dawson DM, Taghavy A. A test for spinal-fluid alcohol in torula meningitis. *New Eng J Med* (1963); 269: 1424-1425.

Applicants believe that these references do not anticipate or render obvious applicants' claimed invention.

Because this Information Disclosure Statement is being submitted before the mailing of a first Office Action on the merits, no fee is believed to be due. However, in the event that a first Office Action on the merits has been mailed which has not yet reached applicant's attorney, or has not yet been connected to the file applicant's attorney's office, applicant hereby requests for consideration of this Information Disclosure Statement, pursuant to 37 C.F.R. §1.97(c) and authorize the Office to Charge Deposit Account No. 03-3125 the amount of the petition fee in accordance with 37 C.F.R. §1.17(p). In the event that a Notice of Allowance has been mailed, applicant hereby petitions, pursuant to 37 C.F.R. §1.97(d), for consideration of this Information Disclosure Statement, and authorize the Office to charge Deposit Account No. 03-3125 the amount of the fee in accordance with 37 C.F.R. §1.17(i).

Respectfully submitted,



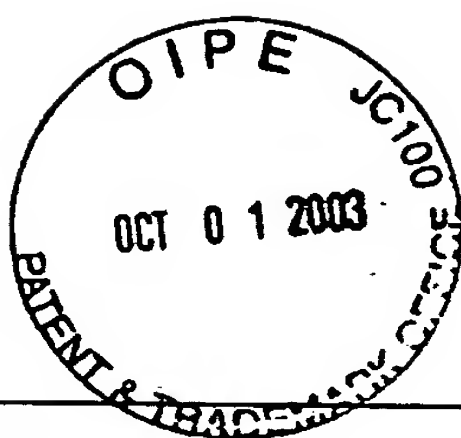
Peter J. Phillips  
Registration No. 29,691  
Attorney for Applicants  
Cooper & Dunham LLP  
1185 Avenue of the Americas  
New York, New York 10036  
(212) 278-0400

I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to:

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

 9/29/03  
Peter J. Phillips Date  
Reg. No. 29,691





RECEIVED

OCT 03 2003

TC 1700

Page 1 of 6

Form PTO-1449

U.S. Department of Commerce  
Patent and Trademark OfficeAtty. Docket No.  
62620/PJPSerial No.  
10/081,838INFORMATION DISCLOSURE STATEMENT  
(Use several sheets if necessary)Applicant  
Tania C. Sorrell et al.Filing Date  
February 21, 2002

Group

## U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate

## FOREIGN PATENT DOCUMENTS

Document Number	Date	Country	Class	Subclass	Translation
					Yes No

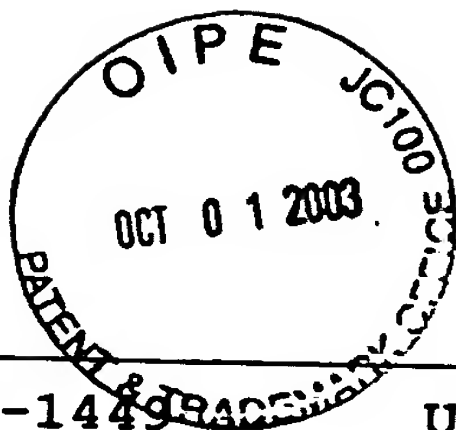
## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

1	Bax, A., and D. Davis. (1986). MLEV-17-based two dimensional homonuclear magnetization transfer spectroscopy. J. Magn. Reson. 65:355-360; Exhibit 2
3	Braun, S., H.-O. Kalinowski, and S. Berger (1998). 150 and More Basic NMR Experiments. Wiley-VCH, New York; Exhibit 3
4	Cohen, J. (Oct., 1968). Weighted Kappa: Nominal scale agreement with provision for scaled disagreement or partial credit. Psychol Bull. Vol 70, No. 4 pp 213-218; Exhibit 4
5	Delpassand, E.S., M. V. Chari, C. E. Stager, J.D. Morrisett, J.J. Ford, and M. Romazi. Rapid identification of common human pathogens by high-resolution proton magnetic resonance spectroscopy. J. Clin. Microbiol. 33(5):1258-62 (May, 1995) ; Exhibit 5
6	Gadian, D. G. (1995). NMR and its Applications to Living Systems. Oxford University Press, Oxford; Exhibit 6

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant.



RECEIVED

OCT 03 2003

TC 1700

Page 2 of 6

Form PTO-1449 U.S. Department of Commerce  
Patent and Trademark Office

Atty. Docket No.  
62620/PJP

Serial No.  
10/081,838

INFORMATION DISCLOSURE STATEMENT  
(Use several sheets if necessary)

Applicant  
Tania C. Sorrell et al.

Filing Date  
February 21, 2002

Group

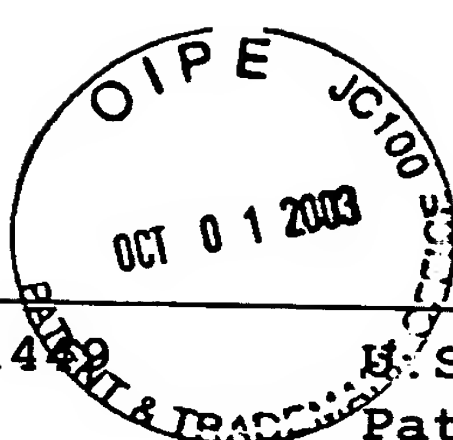
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

7	Goodacre, R., J. K. Heald, and D. B. Kell. (1999). Characterisation of intact microorganisms using electrospray ionisation mass spectrometry. FEMS Microbiol. Lett. 176(1):17-24; Exhibit 7
8	Goodacre, R., E. M. Timmins, P.J. Rooney, J.J. Rowland, and D.B. Kell. (1996). Rapid Identification of Streptococcus and Enterococcus Species Using Diffuse Reflectance-Absorbance Fourier Transform Infrared Spectroscopy and Artificial Neural Networks. FEMS Microbiol. Lett. 140(2-3):233-239; Exhibit 8
9	Hahn, P., I. C. Smith, L. Leboldus, C. Littman, R.L. Somorjai, and T. Bezabeth. (1997). The classification of benign and malignant human prostate tissue by multivariate analysis of <sup>1</sup> H magnetic resonance spectra. Cancer Res. 57(16):3398-401; Exhibit 9
10	Hardie, J. M., and R. A. Whiley. (1997). Classification and Overview of the Genera Streptococcus and Enterococcus. J. Appl. Microbiol. 83(Suppl S):S 1-S 11; Exhibit 10
11	Kummerle, M., S. Scherer, and H. Seiler. (1998). Rapid and Reliable Identification of Food Borne Yeasts By Fourier-Transform Infrared Spectroscopy. Appl. Environ. Microbiol. 64(6):2207-2214; Exhibit 11
13	Mounford, C., R. Somorjai, L. Gluch, P. Malycha, C. Lean, P. Russell, M. Bilous, B. Barraclough, David Gillett, U. Himmelreich, B. Dolenko, A. Nikulin, and I. Smith. (2001). MRS on breast fine needle aspirate biopsy determines pathology, vascularization and nodal involvement. Br. J. Surg. 88, 1234-1240; Exhibit 12
14	Naumann, D., V. Fijala, H. Labischinski, and G. Giebrecht. (1998). The rapid differentiation and identification of pathogenic bacteria using Fourier transform infrared spectroscopy. Journal of Molecular Structure. 174:165-170; Exhibit 13
17	Russell, P., C. Lean, L. Delbridge, G. May, S. Dowd, and C. Mountford, (1994). Proton magnetic resonance and human thyroid neoplasia. I: Discrimination between benign and malignant neoplasms. Am. J. Med. 96:383-388; Exhibit 14
18	Russell, P., C. Lean, L. Delbridge, G. May, S. Dowd, and C. Mountford, (1994). Proton magnetic resonance and human thyroid neoplasia. I: Discrimination between benign and malignant neoplasms. Am. J. Med. 96:383-388; Exhibit 15

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant.



RECEIVED

OCT 03 2003

TC 1700

Page 3 of 6

Form PTO-1449

U.S. Department of Commerce  
Patent and Trademark OfficeAtty. Docket No.  
62620/PJPSerial No.  
10/081,838INFORMATION DISCLOSURE STATEMENT  
(Use several sheets if necessary)Applicant  
Tania C. Sorrell et al.Filing Date  
February 21, 2002

Group

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

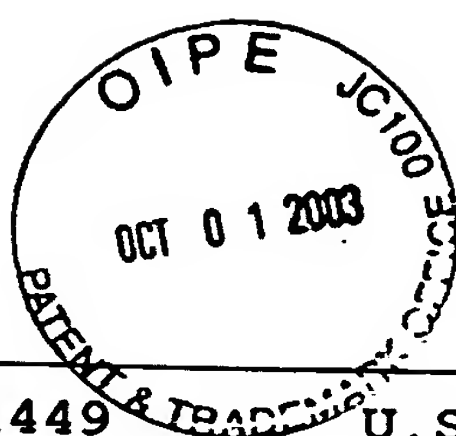
- |    |                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 19 | Somorjai, R., B. Dolenko, A. Nikulin, P. Nickerson, D. Rush, A. Shaw, M. Glogowski, J. Rendell, and R. Deslauriers. (2000). Distinguishing Normal from Rejecting Renal Allografts: Application of a Three-Stage Classification Strategy to MR and IR of Urine. Vibrational Spectroscopy 28(1), 97-102 (2002); Exhibit 16                                                                                                    |
| 20 | Somorjai, R. L., B. Dolenko, A. K. Nikulin, N. Pizzi, G. Scarth, P. Zhilkin, W. Halliday, D. Fewer, N. Hill, I. Ross, M. West, I. C. P. Smith, S. M. Donnelly, A.C. Kuesel, and K.M. Briere. (1996). Classification of <sup>1</sup> H MR spectra of human brain neoplasms: the influence of preprocessing and computerized consensus diagnosis on classification accuracy. J. Magn. Reson. Imaging. 6(3):437-44; Exhibit 17 |
| 21 | Somorjai, R. L., A. E. Nikulin, N. Pizzi, D. Jackson, G. Scarth, B. Dolenko, H. Gordon, P. Russell, C.L. Lean, L. Delbridge, (1995). Computerized consensus diagnosis: a classification strategy for the robust analysis of MR spectra. I. Application to <sup>1</sup> H spectra of thyroid neoplasms. Magn. Reson. Med. 33(2):257-63; Exhibit 18                                                                           |
| 22 | Stager, C. E., and J. R. Davis. (1992). Automated systems for identification of microorganisms. Clin. Microbiol. Rev. 5(3):302-27; Exhibit 19                                                                                                                                                                                                                                                                               |
| 23 | Wallace, J. C., G. P. Raaphorst, R. L. Somorjai, C. E. Ng, M. Fung Kee Fung, M. Senterman, and I. C. P. Smith. (1997). Classification of <sup>1</sup> H MR spectra of biopsies from untreated and recurrent ovarian cancer using linear discriminant analysis. Magn Reson. Med. 38(4):569-76; Exhibit 20                                                                                                                    |
| 24 | Willker, W., D. Leibfritz, R. Kerssebaum, and W. Bermel. (1993). Gradient selection in inverse heteronuclear correlation spectroscopy. Magn. Reson. Chem. 31:287-292; Exhibit 21                                                                                                                                                                                                                                            |
| 25 | Mitchell TG, Perfect JR. Cryptococcosis in the era of AIDS-100 years after the discovery of Cryptococcus neoformans. Clin Micro Rev (1995); 8:515-548; Exhibit 22                                                                                                                                                                                                                                                           |
| 26 | Speed B, Dunt D. Clinical and host differences between infections with the two varieties of Cryptococcus neoformans. Clin Infect Dis (1995); 21:28-34; Exhibit 23                                                                                                                                                                                                                                                           |

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant.





RECEIVED

OCT 03 2003

TC 1700

Page 4 of 6

Form PTO-1449

U.S. Department of Commerce  
Patent and Trademark OfficeAtty. Docket No.  
62620/PJPSerial No.  
10/081,838INFORMATION DISCLOSURE STATEMENT  
(Use several sheets if necessary)Applicant  
Tania C. Sorrell et al.Filing Date  
February 21, 2002

Group

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

- |    |                                                                                                                                                                                                                                                                                               |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27 | Mitchell DH, Sorrell TC, Allworth AM, Health CH, McGregor AR, Papanoum K, Richards MJ, Gottlieb T. Cryptococcal disease of the CNS in immunocompetent hosts: influence of cryptococcal variety on clinical manifestations and outcome. Clin. Infect. Dis (1995); 20:611-616; Exhibit 24       |
| 28 | Chen SCA., Sorrell TC, Nimmo G, Speed B, Currie B, Ellis D, Marriott D, Pfeiffer T, Parr D, Byth K. Epidemiology, and host and variety-dependent characteristics of infection due to Cryptococcus neoformans, in Australia and New Zealand. Clin. Infect. Dis. (2000); 31:499-508; Exhibit 25 |
| 29 | Fujita NK, Reynard M, Sapico FL, Guze LB, Edwards JE Jr. Cryptococcal intracerebral mass lesions: the role of computed tomography and nonsurgical management. Ann Intern Med (1981); 94:382-388; Exhibit 26                                                                                   |
| 31 | Negendank W. Studies of human tumors by MRS: a review. NMR Biomed (1992); 5:303-324; Exhibit 27                                                                                                                                                                                               |
| 32 | Remy C, Grand S, Lai ES, Belle V, Hoffmann D, Berger F, Ziegler A, Le Bas JF, Benabid AL, et al. 1H MRS of human brain abscesses in vivo and in vitro. Magn Reson Med (1995); 34:508-514; Exhibit 28                                                                                          |
| 33 | Hagberg G. From magnetic resonance spectroscopy to classification of tumor-a review of pattern recognition methods. NMR Biomed (1998); 11:148-156; Exhibit 29                                                                                                                                 |
| 34 | Dev R, Gupta RK, Poptani H, Roy R, Sharma S, Hasain M. Role of in vivo proton magnetic resonance spectroscopy in the diagnosis and management of brain abscesses. Neurosurgery (1998); 2:37-42; Exhibit 30                                                                                    |
| 35 | Kim SH, Chang KH, Song IC, Han MH, Kim, HC, Kang, HS, Han MC. Brain abscess and brain tumor-discrimination with in vivo <sup>1</sup> H-MR spectroscopy. Radiology (1997); 204:239-245; Exhibit 31                                                                                             |
| 36 | Grand Spassaro G, Ziegler A, Esteve F, Boujet C, Hoffman D, Rubin C, Segebarty C, Decorps M, LeBas J-F, Remy C. Necrotic tumor versus brain abscess: importance to amino acids detected at <sup>1</sup> H MR spectroscopy-initial results. Radiology (1999); 213:785-793; Exhibit 32          |
| 37 | Danielsen ER, Ross BD. Magnetic Resonance Spectroscopy Diagnosis of Neurological Diseases. New York: Marcel Dekker Inc., pp 27-43, (1998); Exhibit 33                                                                                                                                         |

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant.

RECEIVED

OCT 03 2003

Page 5 of 6

Form PTO-1449

U.S. Department of Commerce  
Patent and Trademark Office

TC 1700

Atty. Docket No.  
62620/PJP

Serial No.  
10/081,838

INFORMATION DISCLOSURE STATEMENT  
(Use several sheets if necessary)

Applicant  
Tania C. Sorrell et al.

Filing Date  
February 21, 2002

Group

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

- |    |                                                                                                                                                                                                                                                                                                                  |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 38 | Saunders DE, Howe FA, van der Boogaart A, McLean MA, Griffiths JR, Brown MM. Continuing ischemic damage after acute middle cerebral artery infarction in humans demonstrated by short-echo proton spectroscopy. Stroke (1995); 26, 1007-1013; (Exhibit 34)                                                       |
| 39 | Remy C, Arus C, Ziegler A, Lai ES, Moreno A, Le Fur Y, Decorps M. In vivo, ex vivo, and in vitro one-and two dimensional nuclear magnetic resonance spectroscopy of an intracerebral glioma in rat brain: assignment of resonances. J. Neurochem. (1994); 62:166-179; Exhibit 35                                 |
| 40 | Delikatny EJ, Russell P, Hunter JC, Hancock R, Atkinson KH, Van Haaften-Day C, Mountford CE. Proton MR and human cervical neoplasia: ex vivo spectroscopy allows distinction of invasive carcinoma of the cervix from carcinoma in situ and other preinvasive lesions. Radiology (1993); 188:791-796; Exhibit 36 |
| 41 | Makinnon WB, Barry PA, Malycha PL, Gillett DJ, Russell P, Lean CL, Doran ST, Barraclough BH, Bilous M, Mountford CE. Fine-needle biopsy specimens of benign breast lesions distinguished from invasive cancer ex vivo with proton MR spectroscopy. Radiology (1997); 204:661-666; Exhibit 37                     |
| 42 | Casadevall A, Perfect JE. In Cryptococcus neoformans. Washington DC, American Society for Microbiology Press, Chapter 4, pp 71-18 (1998); Exhibit 38                                                                                                                                                             |
| 43 | Cherniak R, Sundstrom JB. Polysaccharide antigens of the capsule of Cryptococcus neoformans. Infect. Immun (1994); 62:1507-1512; Exhibit 39                                                                                                                                                                      |
| 44 | Bubb WA, Wright LC, Cagney M, Santangelo RT, Sorrell TC, Kuchel PW. Heteronuclear NMR studies of metabolites produced by Cryptococcus neoformans in culture media: Identification of possible virulence factors. Magn Reson Med (1999); 42:442-453; Exhibit 40                                                   |
| 49 | Lean CL, Mackinnon WB, Mountford CE. Fucose in 1H COSY spectra of plasma membrane fragments shed from human malignant colorectal cells. Magn Reson Med (1991); 20:306-311; Exhibit 41                                                                                                                            |
| 50 | Palmer III AG, Cavanagh J, Wright PE, Rance M. Sensitivity improvement in proton-detected two-dimensional heteronuclear correlation NMR spectroscopy. J Magn Reson (1991); 93:151-170; Exhibit 42                                                                                                                |

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant.



RECEIVED

OCT 03 2003

TC 1700

Page 6 of 6

Form PTO-1449

U.S. Department of Commerce  
Patent and Trademark OfficeAtty. Docket No.  
62620/PJPSerial No.  
10/081,838INFORMATION DISCLOSURE STATEMENT  
(Use several sheets if necessary)Applicant  
Tania C. Sorrell et al.Filing Date  
February 21, 2002

Group

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

- |    |                                                                                                                                                                                                                                                                      |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 51 | Lean CL, Mackinnon WB, Delikatny EJ, Whitehead RH, Mountford CE. Cell-surface fucosylation and magnetic resonance spectroscopy characterization of human malignant colorectal cells. Biochemistry (1992); 31:11095-11105; Exhibit 43                                 |
| 52 | Kalinowski HO, Berger S, Braun S. <sup>13</sup> C-NMR-Spektroskopie. Stuttgart: Georg Thieme Verlag pp 206-402 (1984); Exhibit 44                                                                                                                                    |
| 53 | Barton JK, Den Hollander JA, Hopfield JJ, Shulman RG. <sup>13</sup> C nuclear magnetic resonance study of trehalose mobilization in yeast spores. J. Bacteriol (1982); 151:177-185; Exhibit 45                                                                       |
| 54 | Wiemken A. Trehalose in yeast, stress protectant rather than reserve carbohydrate. Antonie Leeuwenhoek (1990); 58:209-217; Exhibit 46                                                                                                                                |
| 57 | De Virgillo C, Hottiger T, Dominguez J, Boller T, Wiemken A. The role of trehalose synthesis for the acquisition of thermotolerance in yeast. I. Genetic evidence that trehalose is a thermoprotectant. Eur J Biochem (1994); 219:179-186; Exhibit 47                |
| 59 | Ross BD, Merkle H, Hendrich K, Staewen R S, Garwood M. Spatially localized in vivo <sup>1</sup> H magnetic resonance spectroscopy of an intracerebral rat glioma. Magn Reson Med (1992); 23:96-108; Exhibit 48                                                       |
| 60 | Thevelein JM. Regulation of trehalose metabolism and its relevance to cell growth and function. 395-420. In Brambl R, Marzluf, GA, eds. The Mycota. Vol 3. Berlin: Springer Verlag Chapter 19, pp 395-420 (1996); Exhibit 49                                         |
| 61 | Hengge-Aronis R, Klein W, Lange R, Rimmele M, Boos W. Trehalose synthesis genes are controlled by the putative sigma factor encoded by rpoS and are involved in stationary-phase thermotolerance in Escherichia coli. J. Bacteriol (1991); 173:7918-7924; Exhibit 50 |

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant.